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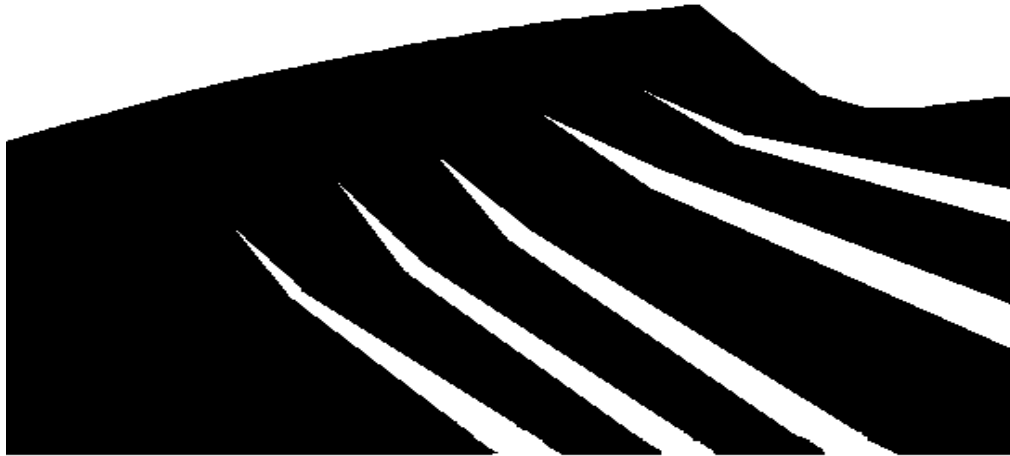
June 2, 1997

LANL-YMP-QP-02.15, R3

Page 1 of 6

REQUIREMENTS TRACEABILITY

LOS ALAMOS QUALITY PROGRAM



APPROVAL FOR RELEASE

M. J. CLEVINGER - PREPARER

Signature on file

DATE

Date on file

M. J. CLEVINGER - QUALITY ASSURANCE PROJECT LEADER

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G. Y. BUSSOD - LABORATORY LEAD

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DATE

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Los Alamos

Yucca Mountain Site
Characterization Project

HISTORY OF REVISIONS

REVISION NO.	EFFECTIVE DATE	PAGES REVISED	REASON FOR CHANGE
R0	01/31/94	N/A	Initial procedure.
R1	06/15/94	All	Revised to incorporate QARD requirements.
R2	06/03/96	All	Revised to address new QARD requirements concerning QA review of the requirements matrix.
R3	06/02/97	All	Revised to address the new technical assurance group and Office of Quality Assurance representative responsibilities.

Los AlamosYucca Mountain Site
Characterization Project

REQUIREMENTS TRACEABILITY

1.0 PURPOSE

This procedure describes the process for the maintenance of the Requirements Traceability Matrix (RTM) for the Los Alamos National Laboratory (Los Alamos) Yucca Mountain Site Characterization Project (YMP or Project).

2.0 SCOPE

- 2.1 This procedure applies to the requirements prescribed by DOE/RW-0333P, Office of Civilian Radioactive Waste Management Quality Assurance Requirements and Description (QARD).
- 2.2 This procedure applies to all Los Alamos and Los Alamos-subcontractor YMP personnel (hereafter referred to as YMP personnel) who work under the Los Alamos YMP quality assurance program.

3.0 REFERENCES

DOE/RW-0333P, Office of Civilian Radioactive Waste Management Quality Assurance Requirements and Description (QARD).
LANL-YMP-QP-06.2, Preparation, Review, and Approval of Quality Administrative Procedures
LANL-YMP-QP-17.6, Records Management

4.0 DEFINITIONS

4.1 Requirements Traceability Matrix

The RTM is an automated requirements matrix that (1) lists each QARD requirement; (2) identifies each requirement or element that is not applicable to Los Alamos YMP activities or where exceptions have been taken; and (3) indicates where each requirement to be implemented is addressed in Los Alamos YMP Quality Administrative Procedures (QPs), Maintenance and Operations contractor (M&O) or Department of Energy (DOE) procedures.

5.0 RESPONSIBILITIES

The following personnel are responsible for activities identified in Section 6.0 of this procedure.

- Technical Assurance Project Leader (TAPL)
- Requirements Traceability (RT) Specialist
- Office of Quality Assurance (OQA) representative

6.0 PROCEDURE

The use of this procedure must be controlled as follows:

- If this procedure cannot be implemented as written, YMP personnel should notify appropriate supervision. If it is determined that a portion of the work cannot be accomplished as described in this QP, or would result in an undesirable situation, that portion of the work will be stopped and not resumed until this procedure is modified or replaced by a new document that reflects the current work practice.
- YMP personnel may use copies of this procedure printed from the controlled document electronic file; however, YMP personnel are responsible for assuring that the correct revision of this procedure is used.
- When this procedure becomes obsolete or superseded, it must be destroyed or marked “superseded” to ensure that this document is not used to perform work.

6.1 Evaluation of Revised QARD Requirements

Revisions to the QARD are reviewed as described in subsections 6.1.1 through 6.1.3 to determine, based on scope of work, the applicability of elements and requirements to Los Alamos work activities. Requirements that apply to the Los Alamos YMP are addressed in Los Alamos Quality Administrative Procedures, M&O or DOE procedures. If a requirement applicable to Los Alamos YMP will not be implemented, a justification is prepared and an exception is taken.

- 6.1.1 The **RT Specialist** reviews QARD requirements to determine applicability to Los Alamos YMP activities.
- 6.1.2 The **RT Specialist** enters “NA” in the RTM for those requirements determined to be not applicable to Los Alamos YMP activities.
- 6.1.3 The **RT Specialist** determines if applicable QARD requirements are addressed by Los Alamos YMP Quality Administrative Procedures, M&O or DOE procedures and performs the following actions:
 - 6.1.3.1 Ensures that the RTM indicates where requirements are addressed in Los Alamos YMP QPs.

OR

- 6.1.3.2 Submits a QP Action Request according to QP-06.2 to request the required changes if requirements are not addressed.

OR

- 6.1.3.3 References, in the RTM, documented justification for exceptions to requirements.

- 6.1.4 The **RT Specialist** enters appropriate information into the RTM for those M&O or DOE procedures used as implementing documents. If the evaluation results in RT matrix changes only and no quality administrative procedure is affected, proceed to subsection 6.2.3.

6.2 Maintenance of RTM

- 6.2.1 If new QPs are written or existing QPs are revised, the **RT Specialist** conducts the following:
 - 6.2.1.1 Ensures that the final version of the new or revised QP is evaluated to verify that applicable QARD requirements are addressed and that the RTM input is prepared identifying where QARD requirements are implemented in the procedure, where requirements are not applicable to the Los Alamos scope of work, or provide justification for the exceptions to the requirements.
- 6.2.2 The **RT Specialist** updates the RTM, including references to any exceptions taken.
- 6.2.3 The **RT Specialist** initiates a requirements matrix review by completing Section I of the RT Matrix Review Criteria and Review Results (Attachment 1), and forwards to an OQA representative, a copy of the requirements matrix, applicable procedure, the RT Matrix Review Criteria and Review Results, and RT Matrix Review Comment Sheet (Attachment 2).

6.3 RTM Review and Comment Resolution

- 6.3.1 An **OQA representative** reviews the requirements matrix and implementing documents utilizing the review criteria provided on the RT Matrix Review Criteria and Review Results.
- 6.3.2 The **OQA representative** completes Section II of the RT Matrix Review Criteria and Review Results, documents any comments on the RT Matrix Review Comment Sheet, and forwards it to the **RT Specialist** for resolution.
- 6.3.3 The **RT Specialist** resolves any comments with the **OQA representative**. If the resolution of comments requires changes to the requirements matrix, the **RT Specialist** updates the RTM. If the resolution of comments requires changes to a QP, the **RT Specialist** notifies the **TAPL** who processes the QP in accordance with QP-06.2.
- 6.3.4 After all comments have been satisfactorily resolved, and if applicable, required changes made to the RTM or QPs, the **OQA representative** signs and dates Section III of the RT Matrix Review Criteria and Review Results and forwards the document to the RT Specialist.
- 6.3.5 The **RT Specialist** submits the completed RT Matrix Review Criteria and Review results to a Records Processing Center.

7.0 RECORDS

The following record generated by this procedure is submitted as a record package in accordance with QP-17.6.

- RT Matrix Review Criteria and Review Results

8.0 TRAINING REQUIREMENTS

8.1 Prior to conducting work described in Section 6.0, the TAPL, RT Specialist and OQA representative, require training to this procedure.

8.2 Training to this procedure is accomplished by "read only."

9.0 ATTACHMENTS

Attachment 1: RT Matrix Review Criteria and Review Results (1 page)

Attachment 2: RT Matrix Review Comment Sheet (1 page)

RT MATRIX REVIEW CRITERIA AND REVIEW RESULTS

SECTION I. (RT Specialist Completes)

Los Alamos YMP Requirements Traceability Matrix dated: _____

QARD Element(s): _____

RT Specialist: _____
(Print Name)

SECTION II. (Quality Assurance Representative completes)

REVIEW CRITERIA

1. QARD requirements have been allocated to the applicable implementing document.
2. Applicable QARD requirements have been correctly linked to the implementing document requirement.
3. The referenced implementing document requirements adequately address the applicable QARD requirements.
4. The matrix is complete, accurate, and meets the requirements of QP-02-15.

I have reviewed the Requirements Traceability Matrix identified in Section I for compliance to the above criteria.

☐ Comments Attached

☐ No Comments, the requirements matrix is acceptable.

OQA representative: _____

(Print Name)

(Signature)

Date

SECTION III. (No signatures required if the "NO COMMENTS" box is marked in Section II)

☐ NA

Comments have been adequately resolved and the Requirements Traceability Matrix is acceptable.

OQA representative: _____

(Print Name)

(Signature)

(Date)

RT MATRIX REVIEW COMMENT SHEET

Los Alamos YMP Requirements Traceability Matrix dated: _____

QARD _____

RT Specialist: _____
(Print Name)

QARD Requirement No.	Comment	Resolution
	EXAMPLE	